There were 44 claims in the original application numbered 1 – 44. There were 44 claims prior to this office action numbered 1 – 44. Following this Office Action response there are 47 claims numbered 1 – 47. There are 3 independent claims and 44 dependent claims. Claims 1, 22 and 43 are the independent claims. Claims 2 – 21, 23 – 42, and 44 – 47 are the dependent claims. Claims 1 – 42 (Original), claims 43 – 44 (Currently amended), and claims 45 – 47 (New).

Reconsideration of the claims argued herein is respectfully requested.

The § 112 Rejections

The Examiner rejects claim 44 under 35 U.S.C. 112, first paragraph as failing to comply with the written description requirement. Specifically, the Examiner states that in claim 44 the rebooting of the first device cannot be both elective and non-elective at the same time. Also, takeover of the first device by a second device cannot be both elective and non-elective simultaneously.

Applicant has rewritten claim 44 and added claims 45 – 47 to claim these four functions independently and respectfully requests withdrawal of the 112 rejection.

The § 102 Rejections

The Examiner rejects claims 1 – 5, 8 – 14, 16 – 19, 21 – 26, 29, 33 – 35, 37 – 40, 42 and 43 under 35 U.S.C. 102(e) as being anticipated by French, U.S. Patent No. 6,341,312. Applicant respectfully traverses the rejection.

French teaches a change to the client side code that enables users to reconnect after they are disconnected. The reconnection requirements than would be necessary at the start of a first session are effected without user participation in that no security challenge appears to the user and devices previously connected to by the user are reconnected.

Conversely, applicant's invention executes code at the server that enables a CIFS session to be maintained through a server takeover or server reboot. This is intended to ensure there is no I/O disconnect, lost data, or corrupted files. The invention executes code at the server that ensures the connection with the client device should never be lost. The emphasis is on a highly available server resource. Thus, if the server fails, the CIFS session can be maintained until the failed server has recovered or another takes its place.

Claim 1

At page 3 the Examiner states that "As to claim 1 French teaches a method of operating a file server, comprising the steps of: ...attempting to continue the CIFS session that the request was part of (replays the connections, col. 6 lines 20 – 48)." Applicant believes this section of text in French actually teaches how French creates a *New Session* (emphasis added) based on stored characteristics of the previously *Lost Session* (Emphasis added). As Examiner correctly states on page 3, French "replays the connections." Any previous CIFS session and any incomplete requests that were part of the previous CIFS session prior to a server or other failure have already been lost. Replaying the connections establishes a new session based on the old session's characteristics, but it does not and cannot continue the prior CIFS session.

French is not seen to disclose a method for continuing a CIFS session that a request was part of following restoration of state to a server upon reboot. Thus, the applied art is not seen to disclose or to suggest the features of claim 1, at least with respect to continuing a CIFS session that a request was part of.

For at least the foregoing reasons it is believed that claim 1 is allowable over French.

Claim 2 - 5

Claims 2 - 5 depend from claim 1. For at least this reason and those stated regarding claim 1, it is believed that claims 2 - 5 are allowable over French.

Claim 8

In regard to claim 8, the Examiner states that "French teaches the method of claim 1, wherein the step of recording state further comprises the step of determining whether the server shutdown was elective or non-elective." Claim 8 states "The method of claim 1, wherein said step of recording state further comprises the step of determining whether said server shutdown was elective or non-elective."

The Examiner directs Applicant to column 6, lines 10 – 20 which state "...ently reconnected to a network device following an interuption of the network connection. The routine begins at step 90 with the user connected to the network device. At step 92, the routine tests to determine whether the network connection has been interupted. For example, such interruption may occur at just a lower level of the network connection protocol (as a result of a transient, intermitent condition). An interuption may occur across the entire connection, due to a power failure, or the like. If the outcome of the test at step 92 is negative, the routine cycles. If, however, the outcome of the test at step 92 is positive, the routine continues at step 94 to reconnect the client to the..."

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In the text cited by the Examiner, French gives examples of some types of interruptions causing session loss. While French does determine whether there has been an interruption, French does not appear to determine the type of interruption or whether the interuption is elective or nonelective. Thus, the applied art is not seen to disclose or to suggest claim 8's feature of determining whether a server shutdown is elective or non-elective.

For at least these reasons it is believed that claim 8 is allowable over French. Also, claim 8 depends directly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claim 8 is allowable over French.

Claim 9

With regard to claim 9, the Examiner states that French teaches a method of claim 1, wherein the step of determining whether the server shutdown is elective or non-elective is a function of a flag (test, col. 6 lines 10 – 20) value stored in the nonvolatile storage (inherent). Applicant beieves that French makes no determination of whether the interuption is elective or nonelective. The text of French appears to indicate that the "positive" and "negative" conditions in French refer only to whether there has been an interuption and not to the type of the interuption (the type being either elective or non-elective). Thus, the applied art is not seen to disclose or to suggest claim 9's feature of determining whether a server shutdown is elective or non-elective.

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For at least these reasons it is believed that claim 9 is allowable over French. Also, claim 9 depends indirectly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claim 9 is allowable over French.

Claims 10 and 11

Please see argument directed toward claims 8 and 9. For at least these reasons it is believed that claims 10 and 11 are allowable over French. Also, Claims 10 and 11 depend indirectly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claims 10 and 11 are allowable over French.

Claims 12 and 16

With regard to claims 12 and 16, the Examiner states that "French teaches the method of claim 1, wherein the step of recording state further comprises the step of determining whether recovery will be accomplished by rebooting the affected server (the machine is rebooted, col. 6 lines 40 – 45) or takeover by another server."

The text identified by the Examiner states that "...the persistent connections are stored in RAM in the _client machine_ (emphasis added)...these structures may be saved to disk such that when the machine is rebooted, the mechanism can reestablish the connections automatically prior to logon." Clearly, French is discussing the "client side" rebooting procedure and not the "server side" reboot procedure. No

mention of take-over appears to be made with respect to the server. French neither teaches nor discloses claim 12's storing of state that further comprises the step of determining whether recovery will be accomplished by rebooting the affected server or takeover by another server.

For at least these reasons it is believed that claims 12 and 16 are allowable over French. Also, claims 12 and 16 depend directly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claims 12 and 16 are allowable over French.

Claim 13 and 17

Please see argument directed toward claims 8 and 9. For at least these reasons it is believed that claims 13 and 17 are allowable over French. Also, claims 13 and 17 depend indirectly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claims 13 and 17 are allowable over French.

Claim 14

Please see arguments directed toward claims 8 and 9. For at least these reasons it is believed that claim 14 is allowable over French. Also, claim 14 depends indirectly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claims 14 is allowable over French.

Claim 18

With regard to claim 18, the Examiner states "French teaches wherein the reboot comprises the steps of: rebooting the affected server's operating system (the machine is rebooted, col. 6 lines 40 – 45); and rebuilding in-memory data structures (data structures, col. 6 lines 40 – 45) to the state prior to the reboot." With reference to column 6, line 40 - 45, Applicant believes this text refers to the client device as identified two lines earlier on lines 42 and 43 and does not refer to the server. French neither teaches nor discloses rebuilding in-memory data structures of the server device.

For at least these reasons it is believed that claim 18 is allowable over French. Also, claim 18 depend indirectly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claim 18 is allowable over French.

Claim 19

With reference to claim 19, Applicant directs Examiner to arguments previously stated in reference to claims 18, 16 and 1.

For at least these reasons it is believed that claim 19 is allowable over French. Also, claim 19 depends indirectly from claim 1 and for at least the reasons stated regarding these claims it is believed that claim 19 is allowable over French.

Claim 21

Claim 21 depends directly from claim 1 and for at least the reasons stated regarding claim 1 it is believed that claim 21 is allowable over French.

Claims 22, 23 – 26, 29, 33 – 35, 37 – 40 and 42

In the Office Action, the Examiner correctly identifies these claims as apparatus claims corresponding to the method claims previously argued. With reference to these apparatus claims, Applicant respectfully requests Examiner see the arguments set forth to the corresponding method claims as follows:

As to claims 23 – 26, please see arguments directed to claim 1 above. Claims 23 – 26 depend from an apparatus claim containing essentially the same limitations as claim 1. For at least the reasons stated regarding claim 1 it is believed that claims 23 – 26 are allowable over the applied art.

As to claim 29, please see arguments directed to claim 8 above.

As to claims 33 – 35, please see arguments directed to claim 12.

As to claims 37 – 40, please see arguments directed to claims 16 and 18 above.

As to claim 42, please see arguments directed to claim 1 above. Claim 42 depends from an apparatus claim containing essentially the same limitations as claim 1. For at least the reasons stated regarding claim 1 it is believed that claim 42 is allowable over the applied art.

Claim 43

With reference to claim 43, the Examiner states that "French teaches the non-volatile memory having storage capable of holding information, the information including: information identifying the state of a first device (state information of the server, col. 5 lines 38 – col. 6 line 20); and information identifying a flag value (the outcome of the test, col. 6 lines 15 – 20)."

Amended claim 43 states in part "information identifying a flag value, said flag value indicating the character of a previous operating mode said character identifying a type of server reboot." (emphasis added) As previously discussed, Applicant can find no text in French that teaches or discloses any method or data structure indicative of this type of reboot of a device, thus French does not teach the invention.

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For at least these reasons it is believed that claim 43 is allowable over French.

The § 103 Rejections

At page 6 of the Office Action, the Examiner rejects claims 6, 7, 27, 28, and 30 – 32 under 35 U.S.C. 103(a), as being unpatentable over French, US patent no. 6,341,312 in view of Sakakura, US patent no. 6,334,139. Applicant hereby traverses the rejection.

Claims 6 and 7

With regard to claims 6 and 7, the Examiner directs Applicant to column 6, lines 10 – 25 which state "…ently reconnected to a network device following an interuption of the network connection. The routine begins at step 90 with the user connected to the network device. At step 92, the routine tests to determine whether the network connection has been interupted. For example, such interuption may occur at just a lower level of the network connection protocol (as a result of a transient, intermitent condition). An interuption may occur across the entire connection, due to a power failure, or the like. If the outcome of the test at step 92 is negative, the routine cycles. If, however, the outcome of the test at step 92 is positive, the routine continues at step 94 to reconnect the client to the"

In the text cited by the Examiner, French gives examples of some types of interuptions causing session loss. While French does determine whether there has been an interruption, French does not determine the type of interruption or whether the interuption is elective or nonelective.

French is not seen to disclose a method for determining whether a server shutdown is elective or non-elective. The applied art is therefore not seen to disclose or to suggest the features of claim 6, at least with respect to determining whether a server shutdown is elective or non-elective.

The Examiner subsequently directs Applicant to Sakakura, col. 9 lines 22 – 26. Sakakura is concerned with tasks to be processed by an agent system and not with maintaining a session. Rebooting the "server B" in Sakakura appears to restart the processing of a registered agent logged in a non-volatile memory. Thus, Sakakura appears to engender what is most accurately termed a taskmanager. A task is requested by a user and is passed to a server and logged for execution. If the server should require rebooting, the task can be re-executed. No session necessarily exists between a user and server during processing. The agent is farmed out to a server and the result is at some point returned to the user or the user fetches the result at a time convenient to them.

When claims 6 and 7 are read in light of the specification, the following is made clear. The invention processes all CIFS requests that are part of an active session prior to an elective reboot. At the text identified by the Examiner, Sakakura "...performs re-execution of the agent registered at the non-volatile memory area..." This occurs following a reboot of the server and not prior to the reboot and is therefore unrelated. The applied art is not seen to disclose or to suggest the foregoing feature of claims 6 and 7, at least with respect to processing all CIFS requests that were part of an active session prior to an elective reboot of a server. Thus, Sakakura does not teach the invention.

For at least these reasons it is believed that claims 6 and 7 are allowable over French in view of Sakakura.

As to claims 27 – 28, please see arguments directed to claims 6 and 7 above.

As to claim 30 – 32, please see arguments directed to claims 9 and 1 above (Section 102 rejections).

The § 103 Rejections (Continued)

At page 7 of the Office Action, the Examiner rejects claims 15, 20, 36, 41, and 44 under 35 U.S.C. 103(a), as being unpatentable over French, US patent no. 6,341,312 in view of Chrabaszcz, US patent no. 6,134,673.

Claims 15 and 36

With regard to claims 15 and 36, the Examiner directs Applicant to column 8, lines 60 – col. 9 lines 15). The Examiner essentially states that the "termination mark 310" of Chrabaszcz is similar to the flag value of Applicant's claims 15 and 36. Applicant believes that the termination mark of Chrabaszcz is only illustrative to show that the server in question is not functioning in figure 3B. There is no indication that it is a flag value. Indeed, at col. 8 lines 58 – 59 Chrabaszcz states "...Server 104 runs process 308 for detection, failover and failback." Process 308 and not a flag value is the determining factor for action in Chrabaszcz. This is because non-elective takeover and failback are the only possible occurrences, thus a flag value is not needed to indicate the type of a failure.

The applied art is not seen to disclose or to suggest the foregoing feature of claims 15 and 36, at least with respect to a flag value indicating takeover will be by another server. Thus, Charabaszcz does not teach the invention.

For at least these reasons it is believed that claims 15 and 36 are allowable over French in view of Sakakura.

Claims 20 and 41

With regard to claims 20 and 41, the Examiner directs Applicant to column 8, lines 60 – col. 9 lines 15.

The Examiner states that "It would have been obvious to apply the teaching of Chrabaszcz to French's system because [it] provides a design choice for backing up in a network system to ensure recovery." Applicant wishes to state the fact that the invention does not perform a recovery solely as claimed in Chrabaszcz. The invention ensures that active CIFS sessions remain intact though the failure and recovery of a server. It may be true that a server recovery can be accomplished by another server using a takeover methodology; however, Applicant finds nothing in Chrabaszcz or French that speaks to maintaining the integrity of a session during such a takeover.

For at least these reasons it is believed that claims 20 and 41 are allowable over French in view of Chrabaszcz. Claim 20 depends indirectly from claim 1 and claim 41 depends indirectly from claim 22 (claim 22 is claim 1 in apparatus format). Thus for the reasons stated in claim 1 and the intervening claims it is believed that claims 20 and 41 are allowable over French in view of Chrabaszcz.

Claim 44

With regard to claim 44, the Examiner again directs Applicant to column 6, lines 15 – 20 with regard to the flag value. Applicant has previously argued the merits of

the flag value above including at least those arguments directed to claims 8, 10 and 11, and respectfully requests Examiner see those arguments in addition those included below.

Claim 44 depends directly from claim 43. Claim 43 as amended states "...information identifying a flag value, said flag value indicating the character of a previous operating mode said character identifying a type of server reboot to be efected while attempting to continue any active CIFS sessions." Neither French nor Chrabaszcz teaches or discloses any method for maintaining a CIFS session across the reboot of a server.

For the these reasons it is believed that claim 44 is allowable over French in view of Charbaszcz

The Examiner also states that "It would have been obvious to apply the teaching of Chrabaszcz to French's system because [it] provides a design choice for backing up in a network system to ensure recovery. Applicant wishes to again state the fact that the invention does not perform a recovery solely as claimed in Chrabaszcz. The invention ensures that active CIFS sessions remain intact though the failure and recovery of a server. While it is true, that a server recovery may be accomplished by another server using a takeover methodology, Applicant finds nothing in Chrabaszcz or French that speaks to maintaining the integrity of a CIFS session during such a takeover.
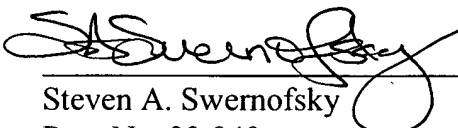
Request for Allowance

It is believed that this application is in condition for allowance. Applicants respectfully request reconsideration and allowance of this application.

If, in the opinion of the Examiner, an interview would expedite prosecution of this application, the Examiner is invited to call the undersigned attorney at the telephone number shown below.

Respectfully submitted,

Dated: January 29, 2004

Steven A. Swernofsky
Reg. No. 33,040

Swernofsky Law Group PC
P.O. Box 390013
Mountain View, CA 94039-0013
(650) 947-0700

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